

What is claimed is:

1. A composition for inducing cartilaginous tissue formation and maintenance comprising a BMP.
2. A method for inducing formation and/or maintenance of chondrocytes or cartilaginous tissue in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
3. A method for treating arthritis, or other cartilaginous tissue defect in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
4. A method for treating articular cartilage defects or damage in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
5. The composition of claim 1, wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
6. The method of claim 2 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
7. The method of claim 3 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
8. The method of claim 4 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.

- Part B1
9. ✓ A composition for blocking or suppressing the inhibitory effects of IL-1 or TNF said composition comprising a BMP.
10. The composition of claim 9, wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
- 5 11. ✓ A method for blocking or suppressing the inhibitory effect of IL-1 comprising administering an effective amount of a BMP.
12. The method of claim 12 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
- 10 13. ✓ A composition comprising MMCs and a BMP for use in articular cartilage repair.
14. A composition for inducing chondrogenesis said composition comprising IL-11 and BMP-9.
15. A composition for inducing chondrogenesis said composition comprising non-tissue culture expanded cells isolated from bone marrow.
- 15 16. The composition of claim 15 wherein said cells are CD105+ cells.
17. The composition of claim 16 further comprising a suitable matrix.
18. The composition of claim 17 further comprising a bone and/or cartilage inducing factor.
19. The composition of claim 18 wherein said factor is a BMP.

20. The composition of claim 19 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.

21. A method for inducing chondrogenesis in a patient in need of same, said method comprising administering to said patient an effective amount of a composition comprising non-tissue culture expanded cells isolated from bone marrow.

22. The method of claim 21 wherein said cells are CD105+ cells.

23. The method of claim 22 further comprising administering a bone and or cartilage inducing factor.

24. The method of claim 23 wherein said factor is a BMP.

25. The method of claim 24 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.

26. A method for treating arthritis, or other cartilaginous tissue defect in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 15.

27. A method for treating articular cartilage defects or damage in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 15.

28. A composition for tissue repair said composition comprising non-tissue culture expanded cells isolated from bone marrow and a bone and/or cartilage inducing factor.

29. The composition of claim 28 wherein said isolated cells are CD105+ cells and said factor is a BMP.

30. The composition of claim 29 further comprising a suitable matrix.

31. The composition of claim 30 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.

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